

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY

MEETING OF FEBRUARY 2, 1937

A regular meeting of the Society was held on February 2, 1937; President Curran in the chair with twenty-three members and thirty-five visitors present.

The program committee reported that the next session would be given over to a general discussion of "Methods of Rearing Insects," led by Miss Lucy W. Clausen.

The following were proposed for active membership: Mr. Norman L. Rumpp, 244 W. 104th Street, New York City; Mr. W. N. Boyd, Millerick Ave., Trenton, New Jersey, R. D. No. 4, and Miss Dora Harris, 16 South Broad Street, Elizabeth, New Jersey.

Dr. A. L. Melander called attention to the death of Professor Brunner, an Orthopterist of California.

Dr. Horsfall made a motion, seconded by Dr. Moore, that the chair appoint a committee to take under consideration and report within two months, to the executive committee for action, the desirability of forming a junior membership class.

The President announced that he would name the committee at the next meeting of the Society.

Dr. C. C. Hamilton, the speaker of the evening, was then introduced. Mr. Hamilton's topic was the "Use of the Airplane and Autogyro in Insect Control." Some problems that have already been treated successfully are—the control of cotton insects in the South, tomato worms in California, blunt-nosed leafhopper in cranberries in N. J., leafhoppers on beets in the West, grasshopper poison bait in the Middle West. The great problem to be faced is the prevention of drifting of the sprays. In this connection it has been found that a concentrated arsenical spray will not drift as much as a dust spray. By the addition of petroleum oil evaporation is prevented.

In striving to take up a greater pay-load most of the time is taken up in loading and in the preparation of equipment. The cost of dusting is therefore dependent upon the pay-load. An airplane goes along on an even keel and the dust gradually spreads and settles. The autogyro, however, flies at an angle and makes for better distribution.

A general discussion of Mr. Hamilton's paper closed the evening meeting.

LUCY W. CLAUSEN, *Secretary*.

MEETING OF FEBRUARY 16, 1937

A regular meeting of the Society was held on February 16, 1937; President Curran in the chair with twenty-eight members and twenty-three visitors present.

The following were elected to active membership: Miss Dora Harris, Messrs. Rump and Boyd. The by-laws were suspended in order to elect Dr. Nellie M. Payne to active membership.

Dr. Curran announced the committee on Junior Membership as follows: Mr. M. Kisliuk, Mr. A. J. Mutchler, Mr. Bird, Dr. Ruckes, Dr. Horsfall.

A discussion, by members, on "Methods of Rearing Insects," occupied the rest of the meeting.

LUCY W. CLAUSEN, *Secretary*.

MEETING OF MARCH 2, 1937

A regular meeting of the Society was held on March 2, 1937; President Curran in the chair with twenty-seven members and twenty-one visitors present.

Dr. Klots spoke on "Lepidoptero-geography in the Rocky Mountains." A series of lantern slides illustrating the chief environments and Life Zones, as well as details of some plant successions, was shown.

LUCY W. CLAUSEN, *Secretary*.

An abstract of the remarks by Dr. Klots follows.

The following mountain ranges were investigated in 1936:

HALL VALLEY, COLORADO

Worked thoroughly from 13,000 ft. down to 9200. *Brenthis frigga sagata* Barnes & Benjamin was found at 9200 ft. in a senescent, acid bog that was growing up to heath. *Brenthis apherabe alticola* Barnes & McDunnough was found in grass and sphagnum bogs from 9500 ft. to 11,000 ft. A new species of *Crambus* was taken in Hudsonian Zone at about 11,200'; this species has also been taken by the author on Pike's Peak and in the Snowy Range, Wyo., and by Dr. Brower in nearly identical environment on Mt. Katahdin, Maine—a striking example of Life Zone distribution.

SANGRE DE CRISTO RANGE, NEW MEXICO

Collecting in lower and middle Canadian Zone. A good series of a new race of *Colias scudderi* was taken in grassy, Iris-Rudbeckia meadows.

SAN FRANCISCO MTS., ARIZONA

The range was badly desiccated, and collecting was very poor. A range surrounded by desert must have a considerable area of forest around the high peaks, or else the hot, drying desert winds will prevent the formation of any great area of tundra above timberline. This is constantly happening here; in addition the whole interior of the range has been badly burned, and there has been much overgrazing.

TUSHAR RANGE, UTAH

Bad weather, with heavy rains and hailstorms, prevented much collecting above timberline. There is a considerable area of true Arctic-Alpine Zone,

and interesting forms should occur here; for this is the most southern of the Utah ranges to possess any considerable area of true tundra.

UINTAH MTS., UTAH

Considerable collecting was done on the mountains surrounding the Mirror Lake Basin. On Mt. Murdock, *Erebia magdalena* Strecker was found in abundance, over 40 specimens being taken in one morning. This species and *Lycaena snowi* Edwards are definitely very petrophilous, flying by choice over barren rockslides on steep slopes. On a lower shoulder of Hayden Peak, an *Oeneis* of the *brucei-semidea* group was taken. This group of *Oeneis* is found only in extreme Arctic-Alpine tundra environment, and serves as an indicator for this zone. The other group of the genus, comprising such species as *chryxus* and *jutta* are found at lower elevations, often down to the middle Canadian Zone.

LA SAL MTS., UTAH

Very few of the typical high altitude butterflies were taken in this range, but such as occurred (*Lycaena snowi*, *Brenthis helena* and *Parnassus smintheus*) show that the relationship of this part of the fauna is definitely with the Colorado mountains which lie to the East of the range, rather than with the Utah mountains to the North and West. The range is surrounded by hot, dry desert, which must effectively bar any present-day exchange of high altitude butterflies with other ranges.

SAN JUAN MTS., COLORADO

In the course of collecting at high altitudes in this range, such famous peaks as the Wetterhorn and Uncompaghre were climbed by some of the party, and interesting faunal and floral observations were made. *Oeneis uhleri* was taken in Upper Canadian Zone, on a lush mountainside; this is one of the "low altitude group" of the genus. A large series of an undescribed species of *Crambus* was taken at camp, which was located at the formerly flourishing, now nearly deserted, mining camp of Capitol City. *Erebia callias* was taken at the base of the final slope of the Wetterhorn; but *Erebia demmia* Warren, recently described from material taken in the San Juans on a former trip by Mr. Whitmer, of our party, and Mr. Davenport, was not found.

MEETING OF MARCH 16, 1937

A regular meeting of the Society was held on March 16, 1937; President Curran in the chair with twenty-eight members and seventeen visitors present.

The speaker of the evening, Dr. Argo, then told about beehives and apiaries. Dr. Argo said that a study of bees is a study of insect psychology. They have a long list of instinctive responses which bear only upon the preservation of the species and not the individual. Slides were shown illustrating the various steps in queen breeding. At the close of Dr. Argo's talk members participated in a general discussion.

LUCY W. CLAUSEN, *Secretary.*

MEETING OF APRIL 6, 1937

A regular meeting of the New York Entomological Society was held on April 6, 1937; President Curran in the chair with twenty-nine members and forty-one visitors present.

The program committee announced that the next meeting would be an open house program by members on collecting notes and exhibition of specimens.

The committee on Junior Membership reported progress and the Chairman, Mr. Kisliuk, hoped to be able to render a complete report at the next meeting.

Dr. William Sargent was proposed for active membership. The by-laws were suspended in order to elect him to membership immediately.

Mr. R. W. Sherman, of Bloomfield, N. J., the speaker of the evening, was then introduced and spoke on "Some Domestic Quarantined Insects." The address consisted mainly of remarks on the control of the Japanese Beetle and its spread since 1916 when it was first discovered by Mr. Harry B. Weiss and Mr. E. L. Dickerson at Riverton, N. J. Since then the U. S. Government had been combating the spread of this pest. At present the quarantine control is still in effect. Two factors govern its activities.

(1) States outside of the infested area wish to be protected from introduction of the pest.

(2) Nurserymen, growers and farmers in the infested area wish to have outlets for their produce and wares. In order to meet these two demands quarantine experts are forever on the lookout for infested stock leaving the territory of infestation.

Mr. Sherman's talk was illustrated with motion pictures showing all the methods of control of the Japanese Beetle on both a large and small scale.

There was a general discussion of Mr. Sherman's paper.

MEETING OF APRIL 20, 1937

A regular meeting of the New York Entomological Society was held on April 20, 1937; Vice-president Moore in the chair with twenty-two members and fourteen visitors present.

The program committee reported that Dr. Daniel Ludwig of New York University would speak at the next meeting on "The Physiological Varieties of the Japanese Beetle—as determined by environmental factors," illustrated by lantern slides.

Dr. Lutz informed the Society of the death of Professor William Morton Wheeler.

The rest of the meeting was devoted to notes by members.

LUCY W. CLAUSEN, *Secretary*.

MEETING OF MAY 4, 1937

A regular meeting of the New York Entomological Society was held on May 4, 1937; President Curran in the chair with twenty-five members and fifteen visitors present.

The committee on Junior membership reported that it would give a full report in the fall.

Dr. Daniel Ludwig of N. Y. U., the speaker of the evening, pointed out that in nature it makes little difference whether the beetles (Japanese Beetles) pass the winter as 2nd or 3rd instars since the time of emergence is practically the same. Reaction of larvæ to food and temperature are very complicated.

There is a diapause in the Japanese beetle grub, the position of which varies with temperature and food.

A general discussion of Dr. Ludwig's paper brought the meeting to a close.

LUCY W. CLAUSEN, *Secretary*.

MEETING OF MAY 18, 1937

As previously announced there was no formal meeting. Members and guests indulged in informal discussions. Refreshments were served.

The following were proposed for active membership: Mr. Randolph Latta, Box 786, Babylon, L. I., and Mr. George Osterman, N. Y. U., University Heights, N. Y. C. The by-laws were suspended in order to elect them before adjournment for the summer.

LUCY W. CLAUSEN, *Secretary*.